

CLAIMS

1. A method for forcibly inserting a drop of a molding material into a concave of a molding female die in a compression molding machine, wherein a molten synthetic resin extruded from an extrusion opening formed at the edge of an extrusion die head is formed into a determined quantity of the drop by holding and then cutting or cutting and then holding by a holding mechanism and a cutter placed at a synthetic resin accepting position which opposes to the extrusion die head, the drop is held and conveyed by the holding mechanism, and the drop held at a discharging position on a molding female die is forcibly inserted and fed into the concave of a molding female die while the holding is released.

2. A method for continuously supplying a drop of a molding material into a moving molding die in a compression molding machine which is a method for supplying a drop in molding die follow-up manner, wherein a holding mechanism of the drop on a rotary-and movable type drop supply is made to approach the rotating molding die and the rotation path of the holding mechanism is made to overlap or nearly overlap with that of the molding die within a determined area and the movement of the molding die is made to follow that of the holding mechanism, or the movement of the holding mechanism is made to follow that of the molding die within a determined area, and the holding of the drop held and conveyed by the holding mechanism is released on the overlapped or nearly overlapped rotary path, to insert the drop into the concave of the molding female die for supply.

3. A device for forcibly inserting a drop of a molding material into a concave of a molding female die in a compression molding machine, which comprises following means: an extruding means for extruding a synthetic resin molding material which forms it into soften and molten condition by heating plasticization, an extrusion opening formed at the edge of an extrusion die head attached to the extruding means, a holding mechanism formed at a synthetic resin accepting position opposing to the extrusion die head, for holding the molten synthetic resin extruded from the extrusion opening, a cutter for cutting the synthetic resin into a determined quantity of the drop, and a supplying means for conveying the drop into a discharging position provided on the molding female die and the held drop is forcibly inserted into the concave of the molding female die with releasing the holding.

4. A device for continuously supplying a drop of a molding material into a moving molding die in a compression molding machine which is a device for supplying a drop in molding die follow-up manner, wherein a holding mechanism on a rotary-and movable type drop supply is made to approach the rotating molding die and the rotation path of the holding mechanism is made to overlap or nearly overlap with that of the molding die within a determined area and the movement of the holding mechanism is made to follow that of the molding die, or the movement of the molding die is made to follow that of the holding mechanism, and the holding of the drop held and conveyed by the holding mechanism is released on the overlapped or nearly overlapped paths of rotation, to insert and supply the drop into the concave of the molding female die.

5. The method or device for supplying a drop in mold follow-up manner according to claim 2 or 4, wherein the drop held on the discharging position provided on the female mold is supplied by forcibly inserted into the concave of the female mold with releasing the holding, when the holding of the drop held and conveyed by the holding mechanism is released on the overlapped or nearly overlapped paths of rotation, to insert and supply the drop into the concave of the molding female die.

6. The method or device for inserting or continuously supplying a drop into a concave of a female mold according to any of claims 1 to 5, wherein the rotary-and movable type drop supply having plurality of holding mechanisms is used and the compression molding machine is a rotary compression molding machine which uses the rotary-type having plurality of dies consisting of male and female molding dies.

7. The method or device for forcibly inserting a drop into a concave of a female mold according to any of claim 1, 3, 5 or 6, wherein the method for forcibly inserting the drop into the concave of the female mold is a forcible method for dropping in which the holding mechanism to hold the drop is lowered at accelerating speed or at a constant speed by inertia.

8. The method or device for forcibly inserting a drop into a concave of a female mold according to claim 7, wherein a lift block is provided for lowering the holding mechanism to hold the drop at accelerating speed or at a constant speed by inertia.

9. The method or device for supplying a drop in molding die follow-up manner according to any one of claims 2 and 4 to 8, wherein the rotation path of the moving molding die is a circular path and the holding mechanism on the movable-type drop supply in molding die follow-up manner can move elastically or perform rotation within a radius of rotation which elastically moves.

10. The method or device for supplying a drop in molding die follow-up manner according to any one of claims 2 and 4 to 9, wherein the holding mechanism on the rotary-and movable type drop supply is made to approach the rotating molding die, while the holding mechanism is made to tilt at a specific angle to the normal of the rotary-and movable type drop supply so that the rotation path of the holding mechanism is made to overlap or nearly overlap with that of the molding die within a determined area.

11. The method or device for supplying a drop in molding die follow-up manner according to any one of claims 2 and 4 to 10, wherein the holding mechanism on the rotary-and movable type drop supply is made to approach the rotating molding die when it rotates, while the holding mechanism is moving along a guide by a cam provided outside the rotary-and movable type drop supply and a cam follower integrated with the holding mechanism, the rotation path of the holding mechanism is made to overlap or nearly overlap with that of the molding die within a determined area so that the movement of the holding mechanism is made to follow that of the mold or the movement of the mold is made to follow that of the holding mechanism.

12. The method or device for supplying a drop in molding die follow-up manner according to claim 11, wherein the holding mechanism further follows the position of the molding die by oscillation when the holding mechanism is made to approach the rotating molding die.

13. The method or device for supplying a drop in molding die follow-up manner according to claim 11 or 12, wherein the holding mechanism is supported by a support, the support is biased or held on with being applied force toward the exterior of a wheel on which the holding mechanism is attached, the cam follower abutting on the cam is set so that the holding mechanism does not move outward from the position, the support moves inward and outward along the guide whose angle varying so that the angle can be set at a specific angle toward the normal or curve of the cam or the angle is optimal, while the support moves along the guide, the holding mechanism abuts the die as appropriate and approaches the rotating molding die to make the path of the holding mechanism overlap or nearly overlap with that of the molding die within a determined area and make the movement of the holding mechanism follow that of the molding die or make the movement of the molding die follow that of the holding mechanism.

14. The method or device for supplying a drop in molding die follow-up manner according to any one of claim 2 and 4 to 8, wherein the rotary-and movable type holding mechanism is supported by a fixing member moved on the path around the eccentric circle, a moving path of the fixing member is controlled by a controlling guide provided on the path of the fixing member or

the cam within a determined area in which the fixing member approaches the rotating molding die to make the path of the holding mechanism overlap or nearly overlap with that of the molding die and make the movement of the holding mechanism follow that of the molding die or make the movement of the molding die follow that of the holding mechanism.

15. The method or device for supplying a drop in molding die follow-up manner according to claim 14, wherein the rotary-and movable type holding mechanism is supported by an extension means provided on a media in a wrapping driving device, the path of the holding mechanism overlaps or nearly overlaps with that of the molding die in a range of concentric circular path of a concentric circle by making comprise at least the circular path concentric circle with the same as the circular path traced by the movable molding die.

16. The method or device for supplying a drop in molding die follow-up manner according to claim 15, wherein the holding mechanism is supported by a support, the support is applied force toward the exterior of a wheel on which the holding mechanism is attached, the cam follower abutting on the cam is set so that the holding mechanism does not move outward from the position, the support moves inward and outward along the guide, the support moves along the guide, while the support approaches the rotating molding die to make the rotation path of the holding mechanism overlap or nearly overlap with that of the molding die within a determined area and make the movement of the holding mechanism follow that of the molding die.

17. The method or device for supplying a drop in molding die follow-up manner according to any one of claims 14 to 16, wherein the path around the eccentric circle is a path formed by vertical or horizontal rotation.

18. The method or device for supplying a drop in molding die follow-up manner according to any one of claims 2 and 4 to 17, wherein control is performed to adjust the moving rate of the holding mechanism to that of the molding die when the moving path of the holding mechanism overlaps with the rotation path of the rotating molding die.

19. The method or device for supplying a drop into a molding die according to any one of claims 1 to 18, wherein the molding which is molded in the compression molding machine is a preform.